From: Jeff Claus, Ph.D. 632 Bostwick Rd.

Ithaca, NY 14850

December 1, 2011

Reasons to Ban Hydrofracturing

A Fact Sheet about the Dangers and Problems Associated with Hydrofracturing for Natural Gas (All information here is drawn from scientific research and verified reports – see web links at the end.)

- The toxic pollution of water, air, and soil associated with hydrofracturing represents a very serious health and environmental hazard. There are verified cases of well and aquifer contamination; of the poisoning of children, adults, pets, and farm animals; and of the long term contamination of soil and streams. While gas drilling companies refute this, the evidence is growing, and it's very distressing. There is evidence of the toxic chemicals used in hydrofracturing migrating into ground water, aguifers, and wells, due to the unpredictable shattering of the shale and leaks in both well casings and the storage ponds that hold fracking wastewater. There's also evidence that the gasses emitted by compressor stations, wastewater ponds, and the regular "flaring" of wells are creating toxic air pollution with serious health consequences for both humans and animals. Farm animals have developed neurological problems so bad they've had to be "put down", family pets have died, and people have experienced very serious respiratory, neurological, and immune system problems. There are documented cases of people getting very sick and having to keep their children indoors to avoid toxic air from nearby drilling and compressor operations. There are people who can't drink the water from their wells or take a shower in their house. And people's wells have been contaminated over a mile away from some drill sites. The air quality in parts of Wyoming where there's a lot of drilling is now worse than in Los Angeles. Breast cancer rates in Texas counties with gas drilling are on the rise, while in all other counties in the state they're declining. Even the president of the Marcellus Shale Coalition, which represents natural gas companies, has said that the group now believes natural gas exploration in Pennsylvania is partly responsible for rising levels of contaminants found there in the drinking water where there's a lot of drilling. This is based on his review of studies by scientists at Carnegie Mellon Univ. and staff at the Pittsburgh Water and Sewer Authority.
- In the Finger Lakes Region, a lot of us rely on our wells and the goodwill of our upstream/uphill neighbors for our drinking water. This is a hilly and wet terrain that is very susceptible to the kinds of problems hydrofracking brings.
- Hydrofracturing has also been documented to release underground radioactive gases and fluids into the atmosphere. These are naturally occurring gases and fluids underground, but when released above ground they're toxic and dangerous. These gases have, in some cases, been found to be as much as 260 times above currently acceptable limits for humans and animals in areas where gas drilling is taking place.
- It's true that a few people may get rich, but they'll do this at the expense of the rest of us. Over 85% of our local Enfield residents, for example, are opposed to gas drilling, due to the problems now understood to be associated with it, and this is true of a number of neighboring rural communities where polls have been conducted. While property ownership does allow people, at least to some degree, to develop their land as they see fit, it doesn't allow people to do this in a way that does serious harm to the health and property of those around them. This is why we have state and local laws against people burning their trash, for example, because this pollutes your neighbors' air with carcinogens. The water, air, and soil pollution of hydrofracking are much worse than the backyard burning of trash.
- Under the proposed NYS DEC regulations, there could be many hundreds, or even thousands, of wells
 per county. Hydrofracking creates an industrial landscape, with heavy truck traffic, polluted air, and lots
 of noise from compressor stations, drill rigs, trucks, and more. Our local economy here in Tompkins
 County depends heavily on forms of tourism, agriculture, and higher education that rely heavily on the

clean water and air and the incredible natural environment here. Many people choose to work, create businesses, and live here BECAUSE of the environment. As a result, drilling will have a chillingly negative effect on on our economy. It's also likely to cost municipalities more than it brings in in local tax revenues, due to road damage and having to address drilling accidents and their environmental consequences. In addition, house prices will decline, and, thus, property tax revenues will decrease. This is the conclusion of a number of large-scale, reputable economic studies that counter the good news story sold to us by the gas industry in their publicity campaigns and advertising costing millions. Many local banks are already expressing an unwillingness to offer mortgages for the purchase of properties with existing gas leases, and lots of people won't buy these properties. The possibility of fracking is wreaking havoc on our housing market, with many people putting on hold their interest in purchasing or building in the area, for fear of the impact of fracking on both the environment and housing values. Some national businesses (e.g., Whole Foods) have already notified local organic farmers that their products will no longer be of interest to them if there is hydrofracturing nearby where the products are grown. These farmers are not small, part-time, alternative operations. They are full-scale businesses providing livelihoods and meaningful employment.

- Drilling companies are allowed to draw the 4-5 million gallons of water required for hydrofracking each well from local sources, including rivers, lakes and streams. This water is not returned to its source, which is probably a good thing given the toxicity of the water even after it is treated. Where will this water come from? If, in our area, from Cayuga Lake and local streams and rivers, this is a true travesty worthy of criminal action (not intended as hyperbole). The water of the Finger Lakes and their water shed/feeder areas are our most precious resource on every level.
- The toxic water that is reclaimed above ground, after fracking, has to be processed by wastewater treatment plants, most of which are not prepared to clean the water properly or to test the water carefully once it's been processed. This water, some of it carrying radioactive elements, ends up back in rivers and streams, often elsewhere. The DEP in Pennsylvania, for example, recognizes that wastewater treatment plants there are not capable of processing this toxic water properly. In New Jersey, Delaware, and some other states, legislation has now been passed outlawing the processing of hydrofracking wastewater due to its toxicity. This demonstrates an understanding and acknowledgement of the severity of the problem, based on evidence.
- When there are problems, as there almost always are, the gas companies have a long history of denying responsibility and failing to address the needs of victims. They fight victims at every turn, and show little concern for their attempts to reclaim some semblance of their lives and property. People's lives are ruined, and the gas companies move on, accepting that these problems and their related expenses are a cost of doing business. They build these costs into their accounting plan, even lobbying for tax breaks associated with these expenses.
- The argument made by the gas companies that their main motivation is for the United States to become energy independent is dishonest and deceitful. The gas industry is currently building ports in Louisiana and Seattle and signing contracts for the export of large quantities of this gas to China and other foreign countries. They will make literally billions of dollars from this, and much of it will be at the expense of people like us who live in rural communities and do not want fracking. In addition, many reputable geologists now think that the estimates by the industry, about how much gas actually exists in the Marcellus Shale, are hugely overestimated.
- The concept of compulsory integration is deeply unjust and offensive. It gives gas companies the power of eminent domain for personal/corporate gain (not the social good) and license to ruin the lives and property of people who do not want hydrofracking on or under their property
- Once the industrial landscape, the negative health consequences, and the environmental harm of hydrofracking occur, there is no way to return to or reclaim the environment, health, or life we once had. In this area, our way of life will be irretrievably altered for the worse, due to the pursuit of personal gain by a few. This, too, is deeply offensive and unjust, and we will fight legally, politically, and through social protest.

Articles, Documents, and Research Reports about the

Negative Health, Environmental, & Economic Effects of Hydrofracturing for Natural Gas

http://www.propublica.org/article/science-lags-as-health-problems-emerge-near-gas-fields

http://thetimes-tribune.com/news/gas-company-whistle-blower-details-spills-errors-1.1234817#ixzz1eGDktK00

http://www.propublica.org/documents/item/250048-pehsu-information-concerning-effects-on-children

http://www.propublica.org/documents/item/250049-community-health-survey-results-pavillion-wyo-by

http://www.nytimes.com/2011/11/20/magazine/fracking-amwell-township.html? r=1&pagewanted=all

http://www.propublica.org/article/epa-finds-fracking-compound-in-wyoming-aquifer

http://www.propublica.org/documents/item/250042-atsdr-2008-garfield-county-health-consultation

http://www.propublica.org/series/fracking

http://www.wcpo.com/dpp/lifestyle/green/at-ground-zero-for-fracking,-residents-say-water-has-gone-bad#ixzz1f2agVcaQ

http://www.propublica.org/article/natural-gas-and-coal-pollution-gap-in-doubt

http://pittsburgh.cbslocal.com/2011/04/19/gas-drilling-industry-makes-stunning-admission/#.TsEuPPpTHsL.facebook

http://www.nytimes.com/2011/08/04/us/04natgas.html?_r=1

http://www.nytimes.com/interactive/us/drilling-down-documents-7.html#document/p702/a27587

http://www.urbandesignlab.columbia.edu/sitefiles/file/HancockAndTheMarcellusShale.pdf

http://gdacc.wordpress.com/medical-professionals-information/presentations-on-health-effects-of-hydrofracking/

http://www.propublica.org/article/does-an-old-epa-fracking-study-provide-proof-of-contamination

http://www.nytimes.com/interactive/us/drilling-down-documents-7.html#document/p375/a27403

http://www.propublica.org/article/doctors-ask-new-york-to-study-health-impacts-before-allowing-fracking

http://www.pittsburghlive.com/x/pittsburghtrib/news/westmoreland/s 769213.html

http://www.cooperstownny.org/wp-content/uploads/2011/05/Hydrofracking-Statement.pdf

http://thedailystar.com/opinion/x1121443682/Gas-jobs-may-come-at-cost-of-existing-ones

http://www.kaidegner.com/featuredpost/hydrofracking-is-bad-business-too.htm

http://www.pressconnects.com/article/20101118/VIEWPOINTS02/11180309/1120/nletter01

http://gdacc.wordpress.com/resources/economic-aspects/

http://newyork.construction.com/opinions/viewpoint/2011/0307_HydrofrackingOffers.asp

http://catskillcitizens.org/learnmore/StatementEconImpactAug2011%5B1%5D.pdf

http://www.propublica.org/documents/item/cornell-university-3-2010-draft-report-on-greenhouse-gas-emissions-fromhyd